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ABSTRACT

This health education guide on venereal diseases will assist the teacher in providing the necessary information which would enable the student to avoid infection and to convey the importance of early treatment if the disease is contracted. The guide begins by giving historical perspectives of syphillis and gonorrhea. Next, teaching strategies are presented, followed by information on the major and minor venereal diseases. A venereal disease glossary and related vocabulary are listed and defined in the following pages. Suggested classroom activities and a list of instructional materials precede information on prevention and control. A review of facts on venereal disease and a sample venereal disease quiz conclude the guide. (RC)

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VIEWPOINTS

Health Education - Venereal Disease

Grades 1-12

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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VIEWPOINTS

Health Education~Venereal Disease

Grades 1-12

Division of Curriculum Development and Pupil Personnel Services
Office of Instructional Services
Georgia Department of Education
Atlanta, Georgia 30334
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1976

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Foreword

In Georgia venereal diseases present a significant public health problem. Among the communicable diseases which are required by law to be reported to public health officials, gonorrhea and syphilis rank first and second, respectively, in relation to the number of cases reported. The greatest incidence of these diseases is found in persons 15-29 years of age.

Both of these diseases can be reduced by creating a public awareness through information and education. Syphilis and gonorrhea can be cured with proper medical attention, but any physical damage which has occurred cannot be repaired.

The General Assembly in 1967 (HR-337) urged that venereal disease education be offered in the public schools of Georgia no later than the ninth grade, and that the Division of Public Health strengthen its education campaign. The typical pattern in Georgia schools is to teach the initial unit in the eighth grade. Increasingly under the quarter system the topic is re-taught at grades 10-11 in a course dealing with critical health problems of adolescence. The purpose of this guide is to assist the teacher in providing the necessary information which would enable the student to avoid infection, and to convey the importance of early treatment if the disease is contracted. This Viewpoint is published jointly by the Georgia Department of Education and the Georgia Department of Human Resources.

●

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Historical Perspectives

Syphilis – The Beginning

The origin of syphilis is cloaked in myth and hypothetical judgments and for many years scholars and medical historians have debated the beginning of syphilis. There are three theories which have emerged from these debates–The Pre-Columbian Theory, The Columbian Theory and the Evolutional Theory.

The Pre-Columbian Theory

The Pre-Columbian Theory maintains that syphilis had been present in Europe long before the voyage of Columbus, but was probably confused with other diseases, or was in a much milder form. There is much circumstantial evidence that syphilis existed in Biblical times. There are many references in the Bible to skin rashes, sores and leprosy, which modern scholars believe to have been syphilis.

The Columbian Theory

According to the Columbian Theory, syphilis was unknown in Europe prior to the return of Columbus and his crew from America in 1493. There appears to be little doubt that a disease (yaws or syphilis) was present among the natives of Hispaniola (West Indies) and that the pilot and several crew members were "treated" for a "new exotic" disease upon their return to Spain. Within a very short time, the sailors were spreading the disease among the waterfront prostitutes, who passed it on to others. Some historians feel that Columbus was afflicted with syphilis and died from paresis at the age of 55 in 1506. (Knowledge that he had been infected might account for his failure to log the appearance of the disease among his crew).

The Evolutional Theory

Around 1965, Doctor C. J. Hackett, who was then Senior Medical Officer of the Venereal Disease Section of the World Health Organization, convincingly put forth a third theory. His theory was that syphilis had evolved from a disease existing as far back as the dawn of history, much as other organisms have evolved, and that what seemed to be the "sudden" appearance of a "new" disease in Europe following the return of Columbus from America was, in fact, an outbreak of a modern variation of an ancient disease that had always been around.

Syphilis – A Name

For nearly 40 years following the return of Columbus to Spain, syphilis masqueraded under many names. It has been estimated that since the beginning of time syphilis has had as many as 650 different names. But in 1530, an Italian poet, physician and astronomer (Girolamo Francastoro) brought an end to name calling. He published a poem, "Syphilus Sive Morbus Gallicus" (Syphilis or the French Disease). The poem was about a shepherd named Syphilus who was afflicted with this disease by the sun god. The poem was widely read throughout Europe, and from that time on this disease has been called syphilis.

Syphilis – Early Symptoms and Treatment

Syphilis, as contagious as small pox, spread rapidly through thousands of people. Patients ran high fevers, experienced intense headaches, bone and joint pains, prostration, and frequently early death. Mercury was among the many drugs tried by physicians in their search for a cure. Mercury had been used for centuries by the Arabs for scabies and was introduced in 1496 as a treatment for syphilis. It was almost as dangerous to the patient as the disease, but despite the agonies associated with overuse, mercury continued as an anti-syphilitic for almost four centuries. Following mercury, many other compounds were used, with arsenic and bismuth being the most common, until John Mahoney of the U. S. Public Health Service announced that four syphilis patients were successfully treated and cured with penicillin (1943).

Syphilis – Diagnostic Progress

In 1901, August Von Wasserman introduced the first blood test for the diagnosis of syphilis. Today a modification of the Wasserman test is used and is called the VDRL (Venereal Disease Research Laboratory) test. In 1905, Fritz Schaudin and Paul Erich Hoffman electrified the world with their discovery of the causative agent of syphilis. Hoffman described the treponema of syphilis as a "pale, fragile, corkscrew organism" which required special darkfield illumination to become visible. Even with these diagnostic advances, syphilis control has been slow in coming.

Syphilis – A Social Taboo

Once syphilis ceased to be a therapeutic problem, it became a "social" one. The very subject of syphilis in

the early twentieth century was taboo. Religious leaders and educators taught that contracting any venereal disease was sinful. They called it the "wages of sin" and often objected to efforts to treat infected people because one was supposed to be "punished" for having sex, and syphilis or other venereal diseases were the punishment. The occasional lone voice seeking to enlighten an ignorant populace was quickly stilled.

It was not until 1936, with the publication of Surgeon-General Thomas Parran's *Shadow on the Land*, that the wall of silence was finally pierced. That year a public education program was launched and continued in spite of protests. With the passage of the National Venereal Disease Control Act in 1938, which authorized financial assistance to states, venereal disease control assumed a new and significant stature. But today, in many minds, syphilis is not so much a contagious disease as it is a symptom of immoral behavior. Public opinion does not encourage the person who fears he may have a venereal disease to seek examination and treatment. Although penicillin has been used effectively to cure syphilis for over 30 years, the disease is still one of the current major public health problems in the United States. It will probably remain so until the attitude of the general public changes from one of moral condemnation to one of concern in eliminating this major health threat.

Gonorrhea

Unlike syphilis, which was melodramatic in its European appearance as well as in its spread and chronological progression, gonorrhea has infected man from time immemorial. One of the earliest descriptions of clinical gonorrhea appears in an Egyptian papyrus dating 3500 B.C., which prescribes plant extract to soothe painful micturition (urination). Galen, (130-210 A.D.) who gave the disease its name (*gonos*, meaning seed; and *rhoia*, meaning flow) erroneously assumed the discharge to be an involuntary loss of semen. For years the mistaken belief that gonorrhea and syphilis were one and the same disease hampered medical knowledge. In 1879, marking the first significant milestone, Albert Neisser put an end to ignorance with his discovery of the gonorrhea organism.

Janet, in 1892, first proposed the use of potassium solutions in the treatment of the disease, and the organic silver salts were introduced early in the twentieth century. Despite these advancements, therapy was long and tedious and quite often ineffective.

Throughout the years, the "Great Sterilizer" continued to exact a tragic toll from millions of infected persons. Immediately prior to World War II, at a time of desperate need, it was discovered that gonorrheal infections yielded remarkably to treatment with sulfanilamide and related compounds. Subsequently, and at a time when it appeared that gonorrhea was resisting the sulfanilamides, penicillin became the drug of choice. Yet despite effective therapy over the past several decades, gonorrhea is still very much with us. Because a short incubation period and great prevalence contribute to its spread, control measures have not materially reduced the problem. Furthermore, there is no natural or acquired immunity.

Teaching Strategies

A teaching unit on venereal diseases may be included with various subjects such as health, physical education, family living, science or social studies. Where possible, venereal disease education should not be taught as a separate subject, but should be incorporated with the existing curriculum. For example, in a science class it could be taught in a section on disease-causing bacteria, or a health class could discuss the subject along with other communicable infections.

When presenting the unit on venereal diseases, the teacher should insure that students understand any terminology which may be new to them (See "Glossary of Terms and Related Vocabulary"). Ideally students should have sufficient knowledge of the male and female reproductive and genito-urinary systems prior to receiving venereal disease education.

It is suggested that when this unit is initiated in the classroom, included in the instructor's approach should be an explanation of why it is important to teach about venereal diseases. The teacher should impress upon the class that the majority of cases of syphilis and gonorrhea is reported among young persons; that these diseases can cause serious damage to the body, resulting in physical suffering and mental anguish; and that, economically, the high incidence of these infections represents a tremendous cost in relation to time lost from school and absence from the labor force.

Following is a suggested outline for your use.

1. Introduction of unit and pretest
2. Film showing
3. Glossary of terms and related vocabulary
4. Slide presentation
5. Review and classroom discussion
6. Post-test (The venereal disease survey will be used as both the pretest and post-test.)

Pretesting should not be overemphasized. Its purpose is to determine the student's level of knowledge prior to instruction. The objective of the post-test is to measure the individual's level of subject information after the unit presentation, and in most circumstances, should reflect an increase in knowledge. A comparison of the two tests should be made. Incorrect answers appearing in the post-test should be reviewed in class, and any necessary clarification should be provided.

It is important to remember that venereal diseases should be taught within the same frame of reference as any other communicable diseases.

Venereal disease educational materials should be objective. Moralizing must be avoided. The most effective approach is a concise presentation teaching recognition of signs and symptoms of disease, avoidance of infection and seeking proper medical attention.

The principal objectives in presenting medical aspects of venereal diseases to young people are to acquaint students with how syphilis and gonorrhea are transmitted, the symptoms, the consequences of untreated venereal disease and the importance and ease of treatment. The long term behavioral objectives are to encourage individuals to avoid infection, and to be responsible for the health of people they may have infected.

The parameters of instruction should include—

1. Exploring the signs and symptoms of gonorrhea and syphilis in the male and female.
2. Discovering the various laboratory tests used to detect and diagnose syphilis and gonorrhea.
3. Learning the difference between facts and popular myths concerning venereal disease.
4. Identifying places where help is available for problems concerning syphilis or gonorrhea.

The Major Venereal Diseases

Gonorrhea

1. Causative organism: Neisseria Gonorrhoeae (the gonococcus)

   The gonococcus is a very delicate bacterium. It requires warmth, moisture and carbon dioxide to survive.

2. Mode of transmission: Direct sexual contact with an infectious person

   Gonorrhea most readily lives on the mucous membranes of certain body openings. The disease is spread during sexual contact from the mucous membranes of an infectious person to a non-infected person.

3. Incubation period: Male—two to 10 days; Female—indeterminate

   The majority of males will develop painful symptoms within the first week of infection. Most females do not develop early symptoms. Both sexes become infectious (able to spread the disease) within a few days after becoming infected.

4. Common symptoms of gonorrhea in the male: Pain and burning on urination, and discharge from the penis

   Urethritis, an inflammation of the tube in the penis, is the most common symptom of gonorrhea among males. White blood cells fighting the infection produce a white to yellowish discharge. The salts in the urine can make elimination very painful. These symptoms may persist until treatment. If the disease is not cured, it may cause permanent damage to the urinary and reproductive systems. As many as 20 percent of males infected with gonorrhea will be asymptomatic, i.e., exhibit no overt physical symptoms.

5. Common symptoms of gonorrhea in the female:

Usually no early symptoms

Infection of the female most frequently occurs in the reproductive system (mainly in the cervix). Fewer sensory nerves, and the absence of urine in this area, are conditions which may allow infection to advance unnoticed for weeks or months.

6. Complications of gonorrhea

The most common serious complication of gonorrhea in the female is pelvic inflammatory disease (PID) (the contiguous spread of infection from the cervix to the lining of the uterus and subsequent entry of organisms into the fallopian tubes and then into the body cavity). Infection may create enough scar tissue in the fallopian tubes to prevent union of egg and sperm cells, thus causing sterilization. In certain cases of PID, surgery may be required. This surgery may cause sterilization. The male also may be rendered infertile when infection causes blockage of the vas deferens (the tube which carries sperm cells from the testicles through the urethra to the outside).

Other complications include, ophthalmia (infection of the sac which holds the eye), arthritis, bladder and kidney involvement, and even heart disease.

7. The asymptomatic reservoir of gonorrhea

It is estimated that 20 percent of infected males and 80 percent of infected females are without symptoms of gonorrhea. A person without symptoms has no reason to seek medical care and may remain infectious for months.

8. Diagnostic tests: The smear and the culture

Gonococcal infection of the male urethra may be diagnosed by a smear (a drop of discharge from the urethra placed on a glass slide, stained and examined under a microscope). This test only takes a few minutes.

Diagnosis of gonorrhea in the female can be made by smear, perhaps only 50 percent of the time. The more reliable and accurate test would be by culture. (A cotton swab is used to obtain a specimen from the endocervical canal. The specimen is then placed on a culture medium, and the medium is placed in an incubator for 24-48 hours. If the gonococci are present, they will grow in colonies on the culture medium.)

9. Treatment

Large doses of quick acting penicillin are used to treat gonorrhea. Several alternative antibiotics are also effective. A person should always seek treatment from a licensed physician in order to receive adequate therapy. Self medication is very dangerous.

Syphilis

1. Causative organism: Treponema Pallidum, a spirochete

The syphilis treponeme is a microscopic spiral bacterium. It is extremely sensitive to variations in temperature, and drys out immediately when exposed to air.

2. Mode of transmission

Syphilis is transmitted from the person with infectious lesions to the uninfected person by close, intimate, skin to skin contact—usually sexual intercourse or sex play. The treponeme enters the body of the uninfected person through a break in the skin or mucous membrane upon contact with an infectious lesion. Lesions occur more frequently in the anogenital region and in the mouth.

3. Incubation period

The period from contraction of disease (contact with an infectious lesion) to the appearance of the primary sore is known as the incubation period. The incubation period ranges from 10 to 90 days, but on the average it lasts for about 21 days. Subtherapeutic doses of antibiotics administered during this time may lengthen the incubation period and may mask the primary stage of disease by preventing the initial lesion (chancre) to develop.

4. Symptoms of Primary Syphilis: Chancre, bubo

Primary syphilis means a chancre is present. The chancre usually appears on or around the genitalia, but may be found in other areas of the body. A chancre in the genital area is usually accompanied by a painless swelling of the inguinal (groin) lymph glands. These swollen glands are called bubos.

The chancre may be hidden from view in females and homosexuals. Most chancres are well defined;

however, some may be so small as to go unnoticed. They are painless and usually do not itch or bleed. A typical chancre will be crater like, round with raised edges, and have a raw moist center, but may take a variety of other forms. It will remain from one to five or six weeks without treatment and heal without scarring. Any break in the skin, especially around the genitals, that does not begin to heal immediately should be suspected of being caused by the treponema pallidum.

5. Manifestations of Secondary Syphilis: Rash, (loss of hair in clumps), sore throat and fever

   The cutaneous eruption of rash usually occurs two weeks to six months after the appearance of the chancre and appears usually after the chancre has healed. These secondary lesions remain for two to six weeks and will heal without treatment. Unless adequate treatment is given, relapse occurs in about 25 percent of the cases within the first 18 months of infection. Often sore throat, headache, fever and alopecia are associated with secondary syphilis.

6. Latent Syphilis

   Even without specific treatment, secondary manifestations will disappear leaving an infected person without clinical signs and symptoms for years. This period without symptoms is called latency. Latency may be ended by spontaneous cure, by treatment or by manifestation of late disabling syphilis. During this period the only finding suggestive of disease is a reactive serologic test for syphilis.

7. Late Syphilis: Permanent damage, disability, death

   Late syphilis may present a tremendous range of signs and symptoms, varying from none apparent to those indicating severe damage to one or more body systems—the skin, viscera (organs within the body), heart and great vessels, and the central nervous system.

8. Congenital Syphilis: Infection of the fetus

   After the first trimester (three months), an infection of the mother may pass directly through the placenta to infect the fetus. Stillbirth or a variety of permanent birth defects may result. Prenatal care, including STS (serologic test for syphilis) helps to prevent congenital syphilis, yet several cases still occur each year in Georgia.

9. Diagnostic Tests: Blood tests and microscopic examination of serum (clear fluid) from the lesion

   If no lesions are present, the diagnosis is made on the results of reactive (or positive) blood tests, history of lesions and of sexual exposure, and history excluding past diseases which may produce a false positive blood test. The blood test confirms the presence of antibodies the body has produced as a control reaction to the syphilis infection. In rare instances some antibodies may be present even though the patient is not infected with syphilis. In all cases the antibodies will remain after the infection is cured, at least for a few months, sometimes for a lifetime. Because the body does not begin to produce a measurable amount of antibodies until after the chancre appears, blood tests do not detect incubating syphilis.

10. Treatment: Long acting penicillin or other antibiotics

    Before penicillin, treatment for syphilis took months. With penicillin, infectious or latent syphilis can normally be treated with a single injection. Treatment of late syphilis is more complicated. Syphilis can be cured in any stage by adequate therapy, but the damage caused by late syphilis cannot be reversed. Persons allergic to penicillin may be treated with antibiotics other than penicillin.

The Minor Venereal Diseases

It is important to know that syphilis and gonorrhea are not the only venereal diseases. Three others which are less common in the United States than syphilis and gonorrhea bring much pain and suffering to many in all parts of the world, especially in countries located near the equator. These diseases are chancroid (Chancrelike), granuloma inguinale (a contagious disease confined to the groin area), and lymphogranuloma venereum (infectious disease characterized by genital ulceration). They may cause serious tissue destruction, especially to the genital organs, and damage to other areas of the body. If these infections

are allowed to remain untreated, they may become chronic and last for years.

Chancroid

1. Causative organism: Hemophilus Ducrey Bacillus

   Chancroid means "chancrelike" and does resemble primary syphilis; however, it is a totally different disease.

2. Mode of transmission: By direct contact with infectious lesions

3. Incubation period: Three to five days

   After the infection starts, it develops rapidly to form a small, tender and painful ulcer.

4. Manifestations of chancroid

   Chancroid has existed for many centuries and used to be confused with syphilis. Its main symptom is a sore that looks very much like the syphilis chancre, but it is soft (Chancroid is also called soft chancre) and usually painful. Multiple lesions may develop rapidly by autoinoculation (spread of infection from one part to other parts of the body), and the lymph glands in the groin may, because of spread of infection from the genital lesions, spontaneously rupture. Early treatment is necessary to prevent rupture of the groin lymph nodes and destructive lesions on the genitalia.

Granuloma Inguinale

1. Causative organism: Donovania granulomatis

   Granuloma inguinale is caused by a round, rod-like organism called a Donovan body.

2. Mode of transmission: By direct contact

   Granuloma inguinale is spread, as are other venereal diseases, by direct contact.

3. Incubation period: One to 12 weeks

   The first symptoms usually are lesions of small areas of prominent swelling in the genital region.

4. Manifestations of granuloma inguinale

   This disease normally progresses very slowly, but is capable of disseminating rapidly. Because it is not very painful, medical attention and treatment is sometimes delayed. Although non-fatal, it may spread to other parts of the body and if untreated, become chronic.

Lymphogranuloma Venereum (L.G.V.)

1. Causative organism: One of several related organisms (bacteria) known as chlamydia found in the tissue cells

   This disease may be identified by performing the Frei test. Sterile pus is extracted from an unruptured bubo of an infected patient and refined into a harmless substance. A small amount of this substance is injected under the skin of the suspect. A raised red papule indicates that the patient is infected. A serologic test for L.G.V., and the exclusion of other venereal diseases, also aids in diagnosis.

2. Mode of transmission: By direct contact

   L.G.V. is usually acquired by sexual contact with an infectious person.

3. Incubation period: Five to 21 days

   L.G.V. usually appears in lymphatic tissues.

4. Manifestations of L.G.V.

   The symptoms of L.G.V. include inflammation of the genitalia, swelling of the lymph glands with abscess formation, chills, fever, headache, sweating and loss of appetite. Treatment is with antibiotics and may require weeks.

Venereal Disease Glossary

Before beginning the study of venereal disease, there are some words that need to be defined in order to avoid confusion.

Not everyone knows the correct names for some of the parts of the body. It is important that everyone understands from the start what is being discussed or referred to.

Female

Cervix – The neckline opening to the uterus from the vagina. Often the initial site of venereal disease infection.

Fallopian Tubes – The tubes that extend out from each upper side of the uterus and end near the ovaries. These tubes serve as a passage for the egg cell (ovum) from the ovary to the uterus and for spermatozoa from the uterus to the egg.

Ovaries – The two female glands which produce egg cells.

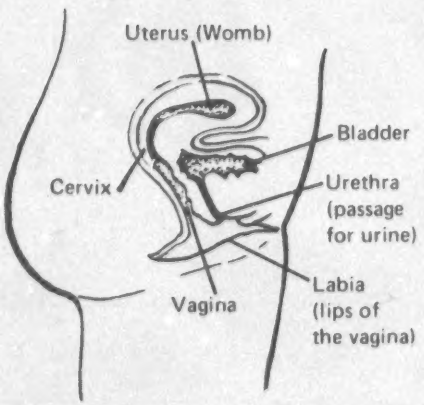
Ovum – An egg cell. A female reproductive cell.

Rectum – The terminal part of the large intestine.

Urethra – A canal through which urine is discharged from the body.

Uterus – Pear-shaped reproductive organ in the female where the unborn baby grows and develops until birth.

Vagina – The muscular structure or canal extending from the uterus to the outside of the body.



Side View

Male

Epididymis – An elongated mass at the back of the testis composed of tubes leading to the excretory duct of the testicle.

Penis – The male sex organ.

Prostate – A gland in the male that surrounds the neck of the bladder and the beginning of the urethra. It secretes a thin fluid which forms part of the semen.

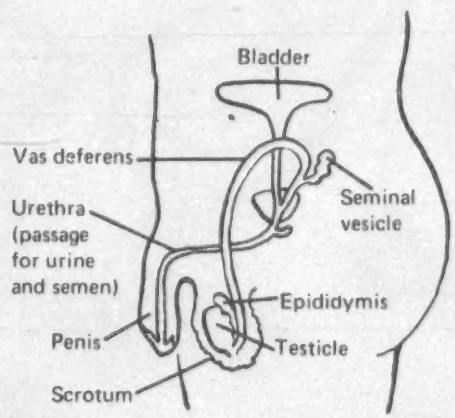
Rectum – The terminal part of the large intestine.

Scrotum – Pouch that contains the testicles.

Testicles – Two glands in the scrotum where male sex cells are produced.

Urethra – A canal through which urine is discharged from the body. In the male, the canal also provides for the passage of seminal fluid.

Vas Deferens – The excretory duct of the testicle. It is a continuation of the epididymis.



Side View

Related Vocabulary

These additional words may be used to enhance one's knowledge of venereal disease and encourage class discussions.

Acute – Pronounced symptoms, with a rapid onset.

Alopecia – ("Moth-eaten") The loss of hair in patches, occurring during the secondary stage of syphilis.

Aneurysm – The invading of the walls of the aorta by the spirochetes, causing it to weaken and balloon out.

Anogenital – Pertaining to the anus and the genital organs.

Antibiotics – A chemical substance which can inhibit the growth of or destroy bacteria and other microscopic organisms.

Antibodies – A substance produced by the body which counteracts the effects of disease producing bacteria or other microscopic organisms.

Asymptomatic – Absence of signs and symptoms of the disease.

Bacteria – Any of a class of microscopic plants having round, rodlike, spiral or filamentous single-celled or noncellular bodies that live in soil, water, organic matter or the bodies of plants and animals.

Birth Canal – The channel, including the uterus and vagina, through which the fetus passes.

Bismuth – A heavy metallic chemical element used in alloys and medicines.

Blindness – Loss or absence of vision.

Central Nervous System – The part of the nervous system consisting of the brain and spinal cord.

Chancre – The initial painless sore or lesion of primary syphilis, formed at the point where spirochetes (bacteria) enter the body.

Chancroid – An acute localized venereal disease caused by Hemophilus ducreyi and characterized by an ulceration at the site of inoculation.

Chronic – Symptoms of long duration.

Communicable – Capable of being communicated or transmitted, as in the case of diseases passing from one person to another.

Complications – An accidental condition or second disease occurring in the course of a primary process.

Conception – The fertilization of an ovum by the spermatozoon.

Confidentiality – The assumption that all information will remain private.

Congenital (Syphilis) – Syphilis passed by a mother to her baby before the baby's birth.

Contact – A person who has been exposed to a contagious disease.

Contraceptive – An agent which prevents conception or impregnation.

Culture – A mass of microorganisms (germs) growing on a laboratory culture medium.

Culture Medium – A substance on which microorganisms grow.

Darkfield Examination – A microscopic examination using a special kind of lighting which makes the object examined appear bright against a dark background.

Diagnosis – Identification of disease from its signs and symptoms, consideration of patient history and the utilization of laboratory evidence.

Discharge – An emission of secretion; a flowing or issuing out.

Disease – A harmful development that impairs the performance of a vital function of the body.

Ectopic Pregnancy – The implantation of a fertilized ovum (egg) outside the uterus (which is the normal place for implantation), i.e. in the fallopian tube.

Endocervical Canal – Canal of the cervix of the uterus.

Epidemic – A disease which attacks many people at the same time in the same geographic area.

Epidemiologist – One who studies epidemics. In venereal disease control, the one who is involved in the contact interviewing and investigative process.

Eruption – The sudden appearance of lesions on the skin.

Exudate – Material such as fluid, cells or cellular debris, which has escaped from blood vessels and has been deposited in tissues or on tissue surfaces, usually as a result of inflammation.

Fallopian Tube – Either of a pair of tubes conducting the egg from the ovaries to the uterus.

Fetus – The unborn offspring of man. The fetal period for the human is from seven to eight weeks after fertilization until birth.

Genital – Region of, or pertaining to, the organs of reproduction.

Germ – A microorganism causing a disease.

Gonococcus – The specific germ of gonorrhea, discovered by Neisser, and having the scientific name of Neisseria gonorrhoeae.

Gonorrhea – A contagious inflammation of the mucous membranes caused by the Neisseria gonococcus.

Granuloma Inguinale – A contagious chronic disease that is confined to the inguinal region (groin area) of the body and is classified as one of the venereal diseases.

Gumma – A mass of rubber-like necrotic tissue found in any of various organs and tissues in latent syphilis.

Herpes – Any of several inflammatory virus diseases of the skin, marked by groups of watery blisters on the skin or on the mucous membranes.

Homosexual – Of, relating to, or exhibiting sexual desire toward a member of one's own sex.

Hysterectomy – Total or partial surgical removal of the female reproductive organs.

Immunity – A condition of being able to resist a particular disease.

Incidence – The total number of new cases of disease occurring in a given area within a specified period of time, usually one year.

Incubation Period – The interval between exposure to an infection and the appearance of the first symptom or sign.

Infected – Invaded by an organism capable of causing a disease, i.e. communicable by infection.

Infectious – Capable of causing infection.

Keratitis – Inflammation of the cornea, causing blindness from congenital syphilis.

Latent – Hidden; not active.

Lesion – Any pathological or traumatic discontinuity of tissue (commonly called a sore).

Lymphogranuloma Venereum – A systemic infectious disease characterized by genital ulceration in the inguinal region of the body and classified as venereal.

Manifestation – Demonstration, exhibition or evidence of symptoms.

Microorganism – Plant or animal organism too small to be seen without a microscope.

Mucous Membrane – A membrane rich in mucous glands that lines body passages and cavities which communicate directly or indirectly with the exterior.

Neisseria Gonorrhoeae – The bacterium that causes gonorrhea; the type species of its genus.

Papules – A solid circumscribed elevation of skin varying in diameter usually associated with secondary syphilis.

Paralysis – Loss of muscle function caused by injury or disease.

Penicillin – Any of several nontoxic antibiotic acids or a salt or ester of one of these acids or a mixture produced by molds used in the treatment of both syphilis and gonorrhea.

P.I.D. – (Pelvic Inflammatory Disease) Inflammation of organs in the pelvic cavity.

Pinta – A skin disease, which is morphologically identical with the spirochetes of syphilis and of yaws.

Placenta – A structure which develops in the uterus during pregnancy and through which the fetus receives its nourishment.

Prevention – (Or preventive) Designed for the purpose of prevention rather than correction or cure, as of disease.

Primary – (Or primary lesion) The earliest clinically recognizable manifestation of a cutaneous disease.

Promiscuous – Not restricted to one sexual partner.

Prostitute – A person who engages in promiscuous sexual activity especially for money.

Rash – A lay term used for nearly any skin eruption but more commonly for acute inflammatory dermatosis.

Reproduction – Pertaining to the capacity of organisms to produce other organisms of the same kind.

Scar Tissue – A permanent mark resulting from a wound or disease process in tissue, especially the skin.

Secondary – (Or Secondary Syphilis) Any of the manifestations of syphilis after the primary complex and up to the fourth year of infection.

Serologic Test for Syphilis – Any laboratory test on the blood serum of a patient for the diagnosis of syphilis.

Silver Nitrate – An aqueous solution, used as an astringent or germicide; also as a prophylactic against ophthalmia neonatorum.

Smear – Preparation of secretions from the body placed on a glass slide for microscopical study.

Spirochete – A corkscrew-like microorganism, one type of which causes syphilis (the Treponema pallidum).

Sterility – Not fertile; not capable of reproducing.

Symptoms – Something that indicates the presence of a bodily disorder, i.e. a rash, headache or lesion.

Syphilitic – Affected with, caused by, or pertaining to the disease of syphilis.

Syphilis – A contagious venereal disease that is caused by a spirochete (Treponema pallidum), and is characterized by a clinical course in three stages that can or may continue over many years.

Systemic – Having to do with the entire body rather than a localized area.

Tetracycline – A yellow crystalline broad-spectrum antibiotic that is used for the treatment of venereal diseases.

Transmission – The transfer of an infectious disease from one person to another.

Treponema Pallidum – The organism that causes syphilis.

Tubal Pregnancy – The implantation of a fertilized egg in one of the fallopian tubes.

Urethritis – Inflammation of the urethra.

Urinary Tract – The passage for the urine, including the kidneys, renal pelvis, ureters, urinary bladder and urethra.

VDRL – (Venereal Disease Research Laboratory) A test used for the diagnosis of syphilis.

Venereal – Relating to sexual pleasure or indulgence.

Yaws – An infectious tropical disease that closely resembles syphilis.

Suggested Classroom Activities

1. Give a pretest.

2. Have students write down their questions before the unit begins, and try to answer all questions during the unit.

3. Have the students (a) develop a program on venereal disease to present to other students, (b) design pamphlets and posters, (c) organize a venereal disease awareness week in the school.

4. Organize discussion groups to probe the topics of parental attitudes, impact of venereal diseases on personal relationships, responsibility of infected persons towards their sexual contacts.

5. Have the class divide into committees, each of which would present a different aspect of the venereal disease problem.

6. Assign several words from the related vocabulary to each student. Have them look up the words in the dictionary and then write a paragraph, correctly using each word.

7. Finally give the post-test. Let the students compare answers from both tests or have a general class review.

Instructional Materials

Historical References

Fracastor, Hieronymus, *Syphilis.* (A translation.) St. Louis: Philmar, 1911. The sixteenth-century poem from which the disease got its name.

Goldwater, Leonard J., *Mercury: A History of Quicksilver.* Baltimore: York, 1972. A scholarly and interesting monograph by one of the world's experts on mercury.

Parran, Thomas, M.D., *Shadow on the Land: Syphilis.* New York: Reynal and Hitchcock, 1937.
A blockbuster of a book in its day, written by the man who finally began to rip away the secrecy and shame that cloaked public thinking about syphilis.

Vonderlehr, R. A., and Heller, J. R., Jr., *The Control of Venereal Disease.* New York: Reynal and Hitchcock, 1946.
Out of date, but folksy and entertaining.

General References

Arnstein, Helene S. and the Child Study Association, *Your Growing Child and Sex.* New York: Bobbs-Merrill, Inc., 1967. $4.95

Blanzaco, A., Richmond, J. B., *VD: Facts You Should Know and Teacher's Resource Notes.* Scott, Foresman and Co., Glenview, Illinois.

Brooks, S. M., *The VD Story: Medicine's Battle Against the Scourge of Venereal Disease.* Totowa, New Jersey: Littlefield, Adams and Co., 1972. $6.95

Curtis, L. P., *Venereal Disease, America's Modern Plague.* Illustrated by P. Farber. McKesson Laboratories, Department of Continuing Medical Education, Fairfield, Conn. 06430.

Font, W. (Consultant), *Venereal Disease (Syphilis-Gonorrhea)* A Self-Instructional Booklet. UCOM Education, Inc., 907 Culver Road, Rochester, N. Y. 14609.

Neumann, Hans H., M. D., with Simmons, Sylvia, *The Straight Story on VD.* New York: Warner, 1973.

Podair, S., *Venereal Disease: Man Against a Plague.* Teachers Manual, Fearon Publishers, Inc., 2165 Park Blvd., Palo Alto, California 94306.

Schwartz, W. F., *Teachers Handbook on Venereal Disease Education.* Includes Complete Students Manual. The American Association for Health, Physical Education and Recreation, a Department of the NEA, 1965. (1201 16th Street, N.W., Washington, D. C. 20036. $2.00)

Schwartz, W. F., *Facts About Syphilis and Gonorrhea.* Students Manual on Venereal Disease. Parts I, II, and III – Programmed Learning. Parts IV and V – Venereal Disease in Perspective. The American Association for Health, Physical Education and Recreation, a Department of the NEA, 1965. (1201 16th Street, N.W., Washington, D. C. 20036. $1.00)

Webster, B., *What You Should Know About VD and Why.* Scholastic Book Services, Division of Scholastic Magazine, 50 W. 44th Street, N. Y., N. Y. 10036.

Georgia Department of Education Film

"Half Million Teenagers"
j-s 16 minutes 4793 color

Discusses the prevalance of venereal disease, especially among teenagers, and emphasizes the need for recognition of symptoms and prompt treatment. Indicates that of the more than one million new cases in a recent year, more than one-half were teenagers. Uses microcinematography to show the spirochete which causes syphilis and the gonococcus which causes gonorrhea. Describes the symptoms of each disease in the male and female and stresses the importance of prompt treatment.—CHU

"Kathy"
s-c 19 minutes 5537 color
Presents clinical cases of several young people who have gonorrhea. Designed to present the facts about venereal disease and to stress the necessity for teenagers to get a medical check, if they even suspect they might have the disease. Covers basic questions that may arise from teenage inquiry.—CCA
NOTE: Preview before showing, order on a separate form and have counter-signed by the superintendent.
(Produced 1969)

Georgia Department of Human Resources Film

The following is a listing of more recent venereal disease films. These films are appropriate for school presentations and may be borrowed for one week at a time. Request film from the:

Venereal Disease Control Unit
Ponce de Leon Office Park
618 Ponce de Leon Avenue
Atlanta, Georgia 30308

1. "A Half Million Teenagers—Plus"
   (Running time 16 minutes. Color)
2. "V. D. Truths and Consequences"
   (Running time 28 minutes. Color)
3. "V. D. A New Focus"
   (Running time 16 minutes. Color)
4. "V. D. Prevention"
   (Running time 15 minutes. Color)
5. "A Half Million Teenagers"
   (Running time 16 minutes. Color)
6. "V. D. Attack Plan"
   (Running time 16 minutes. Color)

Slide Presentation

"Venereal Disease in Georgia"
A slide presentation consisting of 100 transparencies and script is available for purchase at $30.00 per set from the Albany Area V.D. Action Council, P. O. Box 4031, Albany, Georgia 31706.

Prevention and Control

There is obviously only one sure way to prevent contracting a venereal disease; that is, by having no sexual contact or limiting contact to one person who also limits contact to one person. The more one limits his or her sexual contact, the more likely he or she will remain free of syphilis and gonorrhea. Clearly, the converse is true also.

The condom, if used properly, helps prevent infection. It is perhaps the best preventative device which is readily available. Also, washing after sexual contact and urinating before and after contact will destroy germs and is a preventive measure. But these are not always adequate methods.

A person who thinks he or she has a venereal disease should go to a public health clinic or to a private physician for examination and, if necessary, treatment. In Georgia, services provided by public health departments are free for everyone. Listed are public clinics stategically located throughout the state where a person may receive proper care for, and information about, venereal diseases. When contacting the health department, one should ask to speak with a Health Program Representative.

Public Health Clinics

Bibb County
770 Hemlock Street
Macon, Georgia
Phone Number (912) 746-7169

Chatham County
Intermediate Road at Eisenhower Drive
Savannah, Georgia
Phone Number (912) 356-2157

Clarke County
175 Hill Street
Athens, Georgia
Phone Number (404) 542-9600

Cobb County
277 Fairground Street
Marietta, Georgia
Phone Number (404) 422-9440

DeKalb County
400 Winn Way
Decatur, Georgia
Phone Number (404) 371-2626

Dougherty County
2031 Newton Road
Albany, Georgia
Phone Number (912) 439-4161

Floyd County
315 West Tenth Street
Rome, Georgia
Phone Number (404) 235-0157

Fulton County
99 Butler Street, S.E.
Atlanta, Georgia
Phone Number (404) 572-2201

Glynn County
501 Mansfield Street
Brunswick, Georgia
Phone Number (912) 265-0941

Hall County
430 Pryor Street
Gainesville, Georgia
Phone Number (404) 532-5206

Laurens County
2121 Bellevue Road
Dublin, Georgia
Phone Number (912) 272-2051

Lowndes County
316 East Cowart Avenue
Valdosta, Georgia
Phone Number (912) 247-3484

Muscogee County
1958 Eighth Avenue
Columbus, Georgia
Phone Number (404) 327-1541

Richmond County
1001 Bailie Drive
Augusta, Georgia
Phone Number (404) 724-8802

Troup County
Hospital Drive
LaGrange, Georgia
Phone Number (404) 884-8673

Ware County
604 Riverside Drive
Waycross, Georgia
Phone Number (912) 285-4410

Whitfield County
1407 Burleyson Street
Dalton, Georgia
Phone Number (404) 278-6161

Evaluation

These Are Facts, Not Fiction

1. Birth control pills prevent conception, but not venereal disease. The condom is the only contraceptive which helps prevent syphilis and gonorrhea.

2. Both syphilis and gonorrhea are spread through homosexual as well as heterosexual contact.

3. Disappearance of the early signs and symptoms of syphilis, without treatment, does not mean the body is no longer infected.

4. People do not get venereal disease from door knobs, toilet seats, cups, towels or similar objects.

5. A person who has had syphilis or gonorrhea can catch either disease more than one time. There is no immunity to these diseases.

6. There is no reliable blood test for gonorrhea at present.

7. Venereal disease can be spread by oral-genital contact.

8. Syphilis is seldom spread by kissing. It can be if an infectious syphilitc lesion is in the mouth of one of the participants.

9. Syphilis is not hereditary. A child born with syphilis contracts the disease in utero (while in the uterus) from the infected mother. This is called congenital syphilis.

10. A licensed physician is the only person qualified to treat venereal disease. Self medication should never be considered.

11. Chancroid, if untreated, can result in extensive damage to the genitalia.

12. The fact that granuloma inguinale is relatively painless should not be cause for delay in medical treatment.

13. Gonorrhea and syphilis are separate diseases caused by different organisms.

continued

14. Lack of cleanliness does not cause venereal disease.

15. Venereal disease is a collective term which refers to those diseases which are contracted through sexual transmission. Syphilis, gonorrhea, chancroid, granuloma inguinale and lymphogranuloma venereum are all classified as venereal diseases.

Sample Venereal Disease Quiz

	T	F
1. Clap, dose, G.C. and strain all mean the same disease, gonorrhea	( )	( )
2. Some common names for syphilis are: Old Joe, Lues and hair cut	( )	( )
3. "Venereal" refers to Venus, the goddess of love	( )	( )
4. The real cause of syphilis is a specific germ	( )	( )
5. If you have V.D. once, you probably can't catch it again	( )	( )
6. Gonorrhea may be passed on to others, without ever seeing any signs	( )	( )
7. The early stages of gonorrhea often produce few or no symptoms in women	( )	( )
8. You should always wait until symptoms appear before going to a doctor	( )	( )
9. Gonorrhea is detected by a blood test	( )	( )
10. If a person has a negative blood test, he definitely does not have syphilis	( )	( )
11. If you think you have gonorrhea, you should have a culture done	( )	( )
12. The only sure way to never get infected is for both sex partners to avoid premarital and extra-marital sexual relations	( )	( )
13. Urinating soon after exposure might help avoid some V.D.	( )	( )
14. Pus coming from sex organs may mean you have syphilis	( )	( )
15. Skin rash, sore throat and headaches may also mean syphilis	( )	( )
16. A chancre is the first sign of syphilis	( )	( )
17. The primary and secondary stages of syphilis are the infectious stages of the disease	( )	( )
18. A woman infected with gonorrhea will always know it	( )	( )
19. You can never have syphilis and gonorrhea at the same time	( )	( )
20. Syphilis can be fatal	( )	( )
21. Syphilis and gonorrhea both can be passed on to newborn babies	( )	( )
22. If a person with gonorrhea is not treated, it will turn into syphilis	( )	( )
23. Preventive treatment is used to stop incubating syphilis	( )	( )
24. Gonorrhea arthritis is much more frequent in men than women	( )	( )
25. Gonorrhea is the most frequent cause of sterility in women	( )	( )
26. Birth control pills offer limited protection against gonorrhea and syphilis	( )	( )
27. A blood test is the only reliable way to diagnose syphilis	( )	( )
28. A pap smear for cancer will detect gonorrhea	( )	( )
29. Homosexuals cannot catch gonorrhea	( )	( )
30. Congenital syphilis is incurable	( )	( )
31. A woman can pass through the primary stage of syphilis without knowing it	( )	( )

32. Self medication is an accepted practice in treating syphilis ( ) ( )

33. The incubation period for syphilis is from 10 to 90 days ( ) ( )

34. There is a vaccine that will immunize you against syphilis but not from gonorrhea ( ) ( )

35. Syphilis may look like many other diseases ( ) ( )

36. The germs of syphilis and gonorrhea cannot live long outside the human body ( ) ( )

37. The baby born to a mother with syphilis may be mentally retarded ( ) ( )

38. The average incubation period of gonorrhea is approximately three to seven days ( ) ( )

Key

Sample Venereal Disease Quiz

1. T	20. T	11. T	30. F
2. T	21. T	12. T	31. T
3. T	22. F	13. T	32. F
4. T	23. T	14. F	33. T
5. F	24. F	15. T	34. F
6. T	25. T	16. T	35. T
7. T	26. F	17. T	36. T
8. F	27. F	18. F	37. T
9. F	28. F	19. F	38. T
10. F	29. F		